

REMARKS

Applicants respectfully traverse and request reconsideration.

Claims 1, 2, 5-13 stand rejected under 35 USC § 103(a) as being unpatentable over Wessel et al. in view of Leyendecker in further view of Chen et al. According to amended independent claim 1, 10 and 12, among other things, a device or method is disclosed wherein the error signal is generated by combining the transmission signal with the distortion coefficients obtained by accessing the previously registered transfer characteristic based on the transmission signal. None of the references alone or in combination teach such a device having an estimator or a method for predistorting a transmission signal that includes generating an error signal as claimed.

For example, according to Wessel, an adaptive pre-distorter 70 is provided, which comprises correction tables 710 and 740 (see Fig. 6). The tables are accessed based on the transmission signal and digital correction values are output on data busses 713 and 743 and correction signals are generated using digital-to-analog converters 712 and 742 and anti-aliasing filters 714 and 744. The correction signals are applied to the input signal using an amplitude modulator 16 and a phase modulator 18, whereupon the modulated input signal is applied to the power amplifier 22.

For the sake of argument, even if it was assumed that the adaptive pre-distorter 70 represents a time-dispersive element (an assessment which is expressly denied), it is not effective for generating a correction signal by a temporal extension of an error signal formed by combining the transmission signal with distortion coefficients. Rather, according to Wessel, digital correction values are obtained by assessing the respective tables 710 and 740 based on the input signal, i.e. based on the envelope of the input signal detected by the envelope detector 34

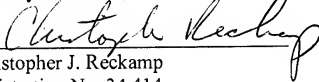
(see Fig. 4). The adaptive pre-distorter 70 does not provide for any combination of the input signal and the digital correction values, so that the adaptive pre-distorter can also not provide for a temporal extension of an error signal generated by such a combination. According to Wessel, the input signal is combined with the correction signals 92 and 94 using the modulators 16 and 18. The modulated signal is directly applied to the power amplifier, so that Wessel is clearly silent about a time-dispersive element as defined in the revised independent claims. For at least these reasons, the claims are in condition for allowance.

The dependent claims add additional novel and non-obvious subject matter and are also allowable for at least depending on allowable base claims.

Applicants respectfully submit that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

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Respectfully submitted,

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